

COMPARISON OF THE ROLE PARTICIPATION AND LIFE SATISFACTION OF MIDDLE-AGE PEOPLE WITH STROKE AND PEOPLE WITHOUT STROKE

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ABSTRACT

This study investigated and identified the effect of stroke on role participation and life satisfaction among middle age (25-60 years) Tamilians who had been diagnosed with stroke 1-3 years and are living in the community (Kattankulathur block). Participants were randomly selected from villages of Kattankulathur block. The Total number of participants were 30, with 15 stroke participants (30-60 years of Tamil origin) in the experimental group and 15 participants (30-60 of Tamil origin) were without stroke in the control group. The results of this study were compared with participants without stroke who are from the same community and of similar age group. The result indicated that middle age people after experiencing a stroke tend to participate in fewer roles than they did in the past and the total number of current roles that they participated in had a direct impact on the life satisfaction.

KEYWORDS: Middle age, Stroke, Roles & Satisfaction

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INTRODUCTION

The effect of stroke following cerebral vascular accident on the middle age population in Tamil Nadu India is on the increase. Overall in India, the adjusted annual incidence (per 100,000 persons) of stroke is 124 in rural area¹ and 145 in urban area².

In India, it is observed that incidence of stroke is higher among younger age group and also among economically low population. In Tamil Nadu, the increasing incidence was at 52/100,000 in 2010 predominately among the middle age group of the population. The increasing cases of stroke and its impact on life satisfaction and involvement of this population's basic life roles are on the decline. As a link between participation in valuing activities and roles and the experience of good health and well being has been recognized within Occupational Therapy.³

Better understanding of role Participation and Life Satisfaction of Middle-Age People with Stroke and People without Stroke is the primary focus of this study is essential in order for Occupational Therapy programs and stroke rehabilitation services to align with the needs of this population group. This informed the researcher of the need to inquire on the effect of stroke on the overall life satisfaction and participation in basic life roles among middle age people of Tamil Nadu. With a sample of 30 people from Kattankulanthur area, this study would make a comparison of life satisfaction and role participation of middle age people who have had stroke with similar age group who are living in similar community but are without stroke.

The Impact of Stroke on Life Satisfaction and Role Participation

Significant changes in participation life roles have been reported in studies of people with stroke and other acquired brain injury. In a study conducted by Morgan and Jongbloed, 30 participants were interviewed who had experienced a stroke within the previous 15 months about the effect of the stroke on their activities, roles and relationships.⁴

All participants reported changes in their activities and roles, such as having to retire from work, relinquishing active leisure activities and leaving the home less often than before the stroke. While some of these changes were the result of loss of physical and cognitive function, other reasons such as lack of transport to access social and leisure opportunities, loss of confidence in ability, and roles were also given. In addition to physical disability following stroke, emotional changes such as depression can have a negative impact on people's feelings of competence to undertake activities and roles⁵

Role Participation

The most common and valued roles for both samples were a family member, friend, and home maintainer, which may be a reflection of the common values held within this age group. The participants with stroke were less likely to have the current roles of hobbyist/amateur, participant in organizations, volunteer, caregiver, or student.

Study Aims

To assess the role participation and life satisfaction of middle age people who had experienced stroke 1-3 years and are living in the community and this is compared with role participation and life satisfaction of normal middle age people in the same community.

The Objectives of This Study

- To investigate role participation and life satisfaction among participants of the study.
- To investigate the effect of stroke on role participation and overall life satisfaction.
- To compare outcomes after stroke with the normal middle age population

METHODOLOGY

Participants

Participants were randomly picked based on availability from selected villages in Kattankulathur block. The total number of participants was 30; this was divided into two equal subgroups: Experimental group had 15 Participants, who are in a middle age (30-60 years) group, are of Tamil origin, have had Stroke within the past minimum of one year and are living in the community. Control group had 15 participants, who are in a middle age (30-60 years) group, are of Tamil origin, are Without Stroke and are living in the community. Participants recognition was screened using the Short Portable Mental Status Questionnaire (SPMSQ)⁶, and participants were required to score 70% or higher to be able to participate in the study.

MEASUREMENT INSTRUMENTS

Role Checklist

The Role Checklist⁷ first requires respondents to indicate whether they currently, previously or intend in the future to participate in the roles of student, worker, volunteer, caregiver, home maintainer, family member, friend, hobbyist/ amateur, religious participant, participant in organizations and other. Second, respondents are asked to rate their current roles in terms of how valuable they are to them on a scale of 'not at all valuable', to 'somewhat valuable' and 'very valuable'. Third, respondents are required to rank their top three most valued roles.

Part 1

- Subjects were asked to read the instructions. Inquire if they understood the instructions and answer any questions
- Pertaining to the administration of part 1.
- When individuals have completed part 1, they were asked to read the instructions for part 2. Inquire if they
- Understood the instruction and answer any questions pertaining to the administration of part 2.

Life Satisfaction Index-A

Life Satisfaction Index-A (LSIA) is a self-rating measure of zest for life; fortitude; congruence between desired and achieved goals; physical, psychological, and social self-concept; and mood tone. It contains 20 items requiring the respondent to agree, disagree, or declare uncertainty about each statement. Items are rated on an ordinal scale ranging from 1 (very dissatisfying) to 6 (very satisfying). Summing of the scores is not recommended. Self-administered for approximately 10 minutes, from the general population, the scale has been found to have acceptable internal consistency ($\alpha = .76$), as well as satisfactory concurrent validity with other measures of life satisfaction.

Background Information

Information was collected from participants about their age, sex, living situation (alone or not alone), marital status (with or without a current partner), years of education, employment status using Kuppaswamy's socio-economic status scale 2012⁸. Other medical conditions, current supports used, date of stroke and its broad impact on their lives.

Procedure

- The study received ethical approval from the SRM University. Participants were comprehensively informed about the study and gave written consent prior to taking part.
- Instruments were translated from English original version to a Tamil version by a Tamil speaking Professor and a reverse translation from Tamil to English by a Bilingualist.
- Two senior Occupational Therapy students who speak and understand Tamil and English were trained on how to administer the instruments particularly to the stroke participants
- The instruments were administered in the following order:
- For participant with stroke: Demographic questionnaire, The Short Portable Mental Status Questionnaire (SPMSQ), Role Checklist, Life Satisfaction Index-A

- For participant without stroke: Demographic questionnaire, Role Checklist, Life Satisfaction Index-A.

DATA ANALYSIS

The data were analyzed using General Linear Model of SAS (2008), program (version 9.2) – SAS Institute Inc. Cary NC, USA. Descriptive statistics were used to explore the participant's variable, ANOVA was used to analyze and to compare role participation and life satisfaction of participants with stroke and those without stroke.

RESULTS

Characteristics of Sample with Stroke and without Stroke

A total of 40 people voluntarily participated in this study, 18 of them were having stroke, out of which 3 were excluded, because of less score in the SPMSQ (less than 70%). The remaining 22 participants were without stroke and 7 were excluded following incompleteness of a questionnaire given to them. Hence the final sample consists of 30 participants, (15 with stroke and 15 without stroke).

The percentage of female participants was (50%) and that of male participants was also (50%). Highest percentage (50%) of participants were married the lowest percentage (3%) of participants who were never married. Highest percentage (27%) of the participants belongs to the age bracket of (46-50) years while the lowest percentages (7%) of the participants were from the age bracket (41-45) years. The percentage distribution of participants by occupation includes the following (20%) Profession, (3%) Semi-Profession, (3%) Clerical, shop owner and farmer, (14%) Skilled worker, (17%) Semi-Skilled worker, (13%) Unskilled worker and (30%) Un-employed.

The highest percentages (30%) of the participants were unemployed while the lowest percentages (3%) were semi-professionally, clerical, shop owner and farmer. Highest percentage (46%) had high school certificate while the lowest percentage (7%) of participants had a profession or honors

Table 1: Result of Value Trends of the Participants with and without Stroke

Parameter	Participants without Stroke	Participants with Stroke	SEM	Probability
Student	2.33 ^a	2.60 ^a	0.20	0.36
Worker	1.60 ^a	1.87 ^a	0.20	0.36
Volunteer	2.27 ^a	2.47 ^a	0.21	0.51
Care giver	1.20 ^a	1.53 ^a	0.16	0.18
Home maintainer	1.07 ^a	1.40 ^a	0.17	0.07
Friend	1.27 ^a	1.67 ^a	0.18	0.08
Family member	1.00 ^a	1.13 ^a	0.07	0.33
Religious participant	1.07 ^b	1.53 ^a	0.10	0.004
Hobbyist/Amateur	1.87 ^a	2.07 ^a	0.18	0.46
Participants in Organization	2.13 ^a	2.40 ^a	0.19	0.33
Non	2.53 ^a	2.67 ^a	0.18	0.60

All Participants reported that most of their currently held roles were 'very valuable'. When asked to rank their top three most valued roles, most participants named being a family member first, being a Home maintainer second and religious participant as third.

Table 1 shows the result of the valuable role of the participants with and without stroke. There were no significant ($P > 0.05$) difference between the value roles of participants with stroke and those without stroke except in religious participants. There was significant ($P < 0.05$) difference in the value of religious participants among the different

participants. The value of religious participants without stroke was significantly ($P < 0.05$) higher than that of the participants with stroke.

Table 2: Comparison of Life Satisfaction Index of the Participants with and without Stroke

Parameter	Participants without Stroke	Participants with Stroke	SEM	Probability
Life satisfaction index	25.27 ^a	24.60 ^a	1.25	0.72

a, b, c, d : Means within each row with different superscript are significantly different, ($p < 0.05$)

The associations between the number of roles lost between the past and present and life satisfaction score, and the number of current roles and life satisfaction score were examined. The mean within each role loss was not significantly different with life satisfaction ($P = 0.72$). Considering the descriptive statistics, for the 15 participants with stroke who currently held 5 or more roles, their mean life satisfaction score was 24.7, compared to the 15 participants without stroke more than 5 roles whose mean life satisfaction score was 25.8

DISCUSSIONS

Participants with Stroke

The associated impairments following stroke reported by participants in this study, included changes to physical status, decrease cognition, emotion, communication and vision, are consequences commonly reported in stroke literature⁹. However were able to score above 70% in the Short Portable Mental Status Questionnaire (SPMSQ).

Role Participation and Life Satisfaction

In this study, both samples reported engaging in fewer roles than they did in the past, however, participants with stroke had relinquished more roles and were currently engaged in fewer roles than the sample without stroke.

This result is similar to previous findings which have linked the onset of disability to role loss¹⁰. The results of this study also support previous findings that the number of currently held roles is linked to enhanced life satisfaction¹¹. When current role participation was examined in relation to life satisfaction for the sample with stroke, those who had a greater number of roles (five or more) had higher life satisfaction scores compared to those with fewer than five roles.

Another finding is that some stroke participants relinquished roles that were of less personal importance and maintained more valuable roles, thereby maintaining life satisfaction despite having lost roles¹². **Baltes and Baltes** proposed that successful adjustment can be achieved by selective optimization with compensation. This model appears to be relevant as some stroke participants relinquished more roles but did not decrease their overall life satisfaction.

IMPLICATIONS OF THE STUDY

- Helping the client in the selection of most value role and using behavioural changes and compensatory techniques to optimize their participation in these roles¹³.
- Also, Occupational therapists could promote the Selection, Optimization and Compensation (SOC) model¹⁴ to clients to enhance their participation in valued and meaningful roles.

LIMITATIONS

- Approximately 60% of the participants with stroke were men, compared to 40% were female. Gender differences

have been found to have a direct effect on role participation particularly roles that are established in home keeping activities.

- Less sample size was used.

RECOMMENDATIONS

- Further research could also investigate the individual's perception of the quality of the role they are participating in, establishing if they are satisfied with the amount of time that they are spending in that role or activity.
- The increase in the sample size of participants with stroke in future research would assist in increasing the reliability of the findings.
- Future studies could also determine if the physical, emotional and psychological manifestations of stroke have a direct impact on role participation among the middle age population.

CONCLUSIONS

- This study aimed to compare roles, participation and life satisfaction of people who have experienced a stroke within the last 1-3 years with a sample taken from Kattankulathur block in Tamil Nadu India.
- Comparison of the results identified the specific effects of stroke on participant role participation and life satisfaction. The result indicated that middle age people after experiencing a stroke tend to participate in fewer roles than they did in the past and the total number of current roles that they participated in had a direct impact on the life satisfaction.
- The overall challenge for occupational therapist working in stroke rehabilitation is to establish how best to minimize these changes to role participation including the potential effects on life satisfaction

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